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NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Anura, Cycloramphidae, *Proceratophrys concavitympanum* Giaretta, Bernarde and Kokubum, 2000: Distribution extension for Brazilian Amazonia and first record in the state of Pará

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ABSTRACT: Currently, *Proceratophrys concavitympanum* is only known in the states of Rondônia, Tocantins and Mato Grosso, south of the Amazon. In this study, we will present an extension of the geographic distribution in the Brazilian Amazonia and the first record of the species in the state of Pará. The new record was obtained at Riozinho do Anfrísio Extractive Reserve, in the municipality of Altamira, state of Pará, Brazil.

The genus *Proceratophrys* Miranda-Ribeiro, 1920 is endemic to South America, occurring in Brazil, Argentina and Paraguay (Frost 2010). Frost (2010) considers 19 species in this genus, all occurring in Brazil; however, the SBH (2010) presents a list of 22 species, by including *Proceratophrys fryi* (Günther, 1873); *Proceratophrys rondonae* Prado and Pombal, 2008 and *Proceratophrys tupinamba* Prado and Pombal, 2008. *Proceratophrys concavitympanum* Giaretta, Bernarde and Kokubum, 2000 is included in the *Proceratophrys cristiceps* (sensu Giaretta *et al.* 2000) species group, which is formed by the following species: *P. cristiceps* (Müller, 1883), *P. goyana* (Miranda-Ribeiro, 1937), *P. cururu* Eterovick and Sazima, 1998 and *P. maratoi* (Jim and Caramaschi, 1980). The main characteristics of this group are the lack of palpebral and rostral appendices or ocular elevations (Giaretta *et al.* 2000).

Proceratophrys concavitympanum (Figure 1A and B) is currently known from its type locality in the municipality of Espigão do Oeste (Giaretta *et al.* 2000), besides the municipalities of Cacoal and Ministro Andreazza (state of Rondônia), Rondolândia and Aripuanã (state of Mato Grosso), and Palmas (state of Tocantins) (Santana *et al.* 2010); all located in the south of the Amazon Forest. Caldwell and Araújo (2005) collected individuals of *Proceratophrys* sp. in two localities in the state of Pará: in the Teles Pires and Xingu Rivers. It is possible that these individuals are *P. concavitympanum* and, in case the identification is confirmed, this data will corroborate the extension of the species distribution to a more northern portion of the Amazon in comparison with localities previously registered. Information of the geographic distribution, biology and natural history of the species are extremely important for the elaboration of conservation strategies. Due to the insufficient information of the geographic distribution and biology aspects of the species, its state of conservation is unknown (IUCN 2010).

According to Santana *et al.* (2010), males and females of *P. concavitympanum* are similar to each other; however, they show sexual dimorphism in some morphometric parameters, and the female (average SVL = 52.37 mm) is generally larger than the male (average SVL = 45.42 mm).

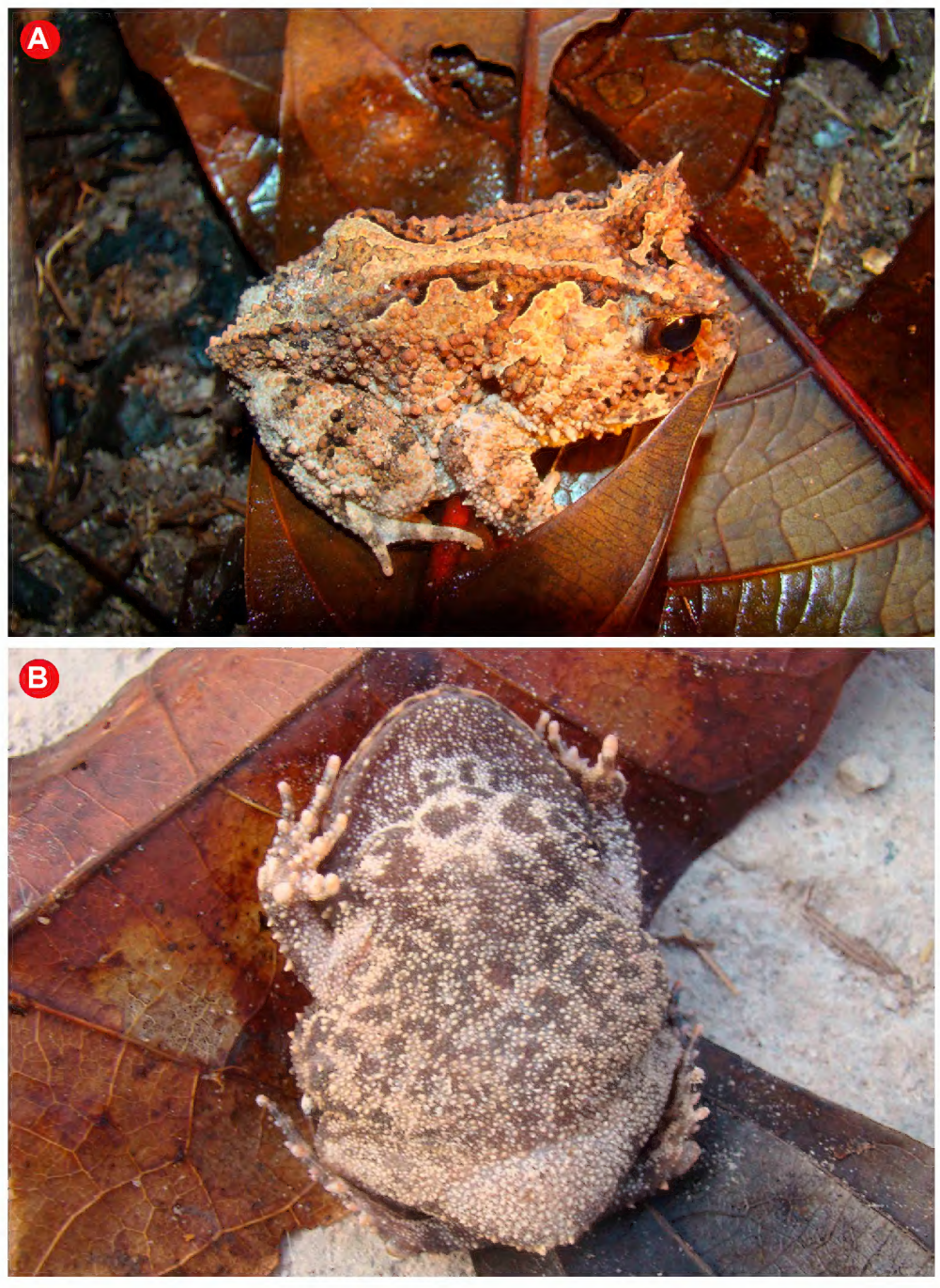

FIGURE 1. *Proceratophrys concavitympanum* from the Reserva Extrativista Riozinho do Anfrísio, Altamira, state of Pará. (A) dorso-lateral view; (B) ventral view. Photos by Flávio Bezerra Barros.

In this study, we present the first record of the species in the state of Pará and the extension of its geographic distribution in the Amazon (Figure 2).

During fieldwork on December 26th 2009, at 20:30h, six individuals of *P. concavitympanum* were observed in the locality of Boa Saúde (04°57'37.0" S, 55°07'12" W), Reserva Extrativista Riozinho do Anfrísio, in the municipality of Altamira, Pará. The Reserva Extrativista Riozinho do Anfrísio was created in 2004. It has an area of 736,340 ha (Brasil 2004) and a 0.4 % of deforestation (INPE 2010). The individuals were recorded in the interior of the primary forest, next to a temporary stream. The individuals were found in the leaf litter in the forest and in the sandy channel of the stream, presenting cryptic coloration. In March 17th 2010, an individual was recorded in the same type of environment at the referred locality. The individuals (N = 2) collected are deposited in the Coleção Herpetológica of the Museu Paraense Emílio Goeldi (MPEG 30931 and MPEG 30932) (IBAMA: licenses 13259-1 and 20477-1). After collection, one of the individuals vocalized inside a plastic bag and the call was recorded. The species identification was confirmed by comparison of its vocalization, as well as a comparison analysis of the external morphology by photography and its description (Giaretta *et al.* 2000). The information regarding the type of environment explored by *P. concavitympanum* in this study is compatible with that found in Santana *et al.* (2010), who also recorded the species in forest environments next to temporary steams with sandy beds. The record of *P. concavitympanum* in Pará reinforces the importance of the necessary biological inventories and studies of natural history of the anurans in Amazonia. The protected area may be considered a good instrument for the conservation of *P. concavitympanum*.

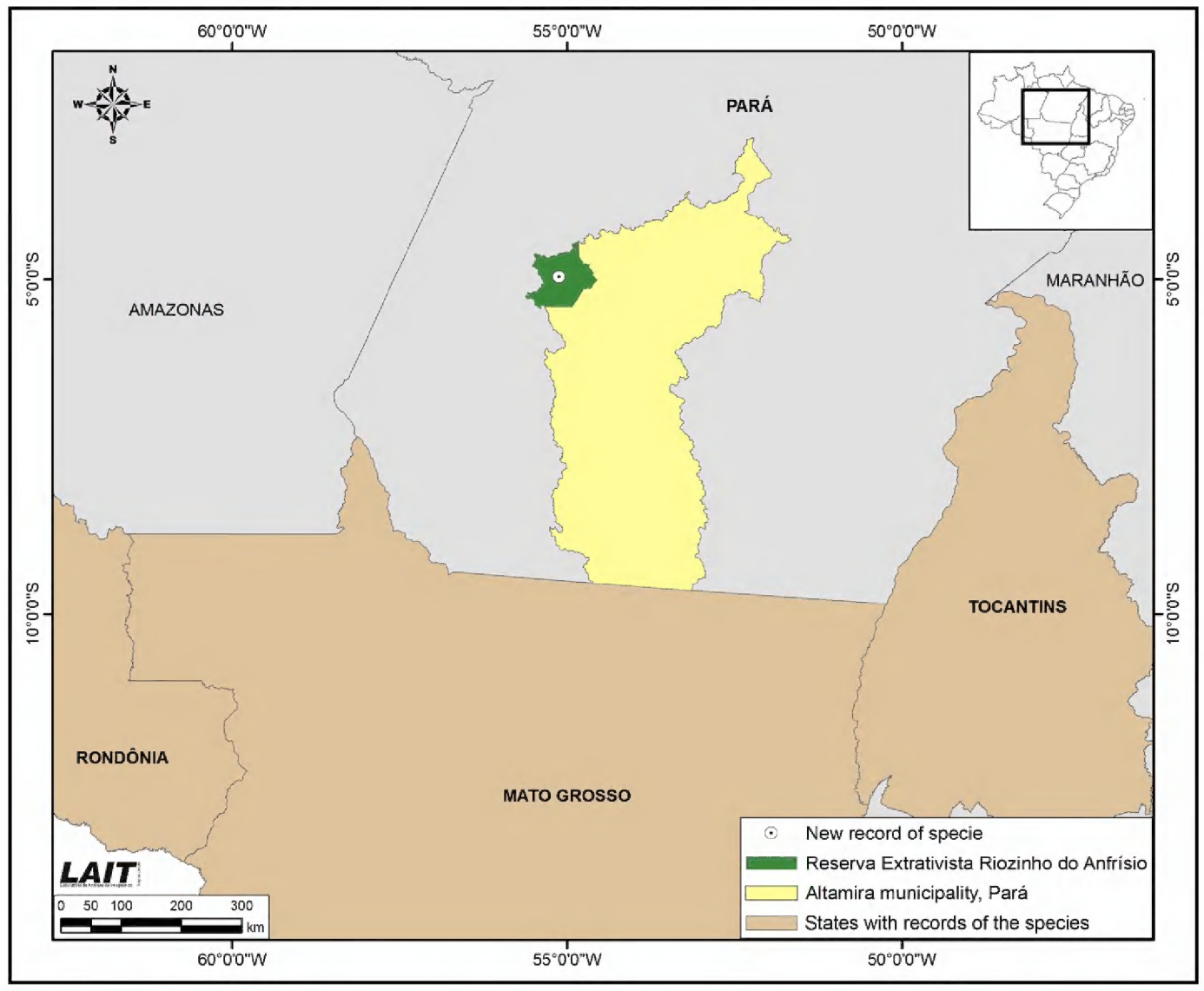

FIGURE 2. Map with new record and distribution of *Proceratophrys concavitympanum* in the state of Pará, Brazilian Amazonia.

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